



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/594,170

06/15/2000

Helmut Rudigier

622HE/48982

8885

7590

12/20/2004

CROWELL & MORING, LLP
P.O. BOX 14300
WASHINGTON, DC 20044-4300

EXAMINER

ROJAS, OMAR R

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 12/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/594,170

Applicant(s)

RUDIGIER, HELMUT

Examiner

Omar Rojas

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on August 5, 2004 and September 28, 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,4-9,12,13,16,19-22,26-30 and 32-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26-30,33,35,37,38 and 41-43 is/are allowed.
- 6) ☒ Claim(s) 4-9,12,16,19,21,22,32,34,36,39 and 40 is/are rejected.
- 7) ☒ Claim(s) 2,13 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. In response to the supplemental amendment filed on September 28, 2004, all the changes to the claims have been entered.

Response to Arguments

2. Applicant's arguments filed August 5, 2004 with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. Claim 16 is objected to because of the following informalities: The word “the” appears to be missing before the word “support” in claim 16 . Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 6, 32, and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Pat. No. 5,059,779 to Krichever et al. (“Krichever”).**

Regarding claim 36, Krichever teaches an optical switch (e.g., see Fig. 4) having at least one mirror surface (164,166) comprising a reflective layer, a glass body support (162) equipped with said reflective layers on opposite sides of said support (162), wherein the support (162) and the mirror surface(s) (164,166) are arranged on a swiveling switch body (126).

Regarding claim 6, as seen in his Figures 5 and 6, the mirror surfaces (164, 166) of Krichever are highly reflective.

Regarding claim 32, the use of gold, silver, and aluminum materials for reflective layers was well known in the art at the time of the claimed invention and Krichever could be considered to inherently comprise at least one of the said reflective materials.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 5, 12, 16, 21, 34, and 39 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Krichever as applied to claims 6, 32, and 36 above.

Regarding claims 5, 16, 21, 34, and 39, the examiner incorporates the previous remarks and notes that Krichever is silent as to the method steps recited by claims 5, 16, and 39. However, the applicant(s) is claiming the product including the process of making the optical switch (i.e., using a vacuum coating method which known per se, gluing the support to the switch body, cutting the glass body out of a glass plate). Therefore, claim 5, 16, and 39 are of "product-by-process" nature. The courts have been holding for quite some time that the determination of the patentability of product-by-process claim is based on the product itself rather than on the process by which the product is made. *In re Thorpe*, 77 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). Patentability of claim to a product does not rest merely on a difference in the method by which that product is made. Rather, it is the product itself which must be new and unobvious. Applicant has chosen to claim the invention in the product form. Thus, a prior art product which possesses the claimed product characteristics can anticipate or render obvious the claimed subject matter regardless of the manner in which it is fabricated. A rejection based

on 35 U.S.C. section 102 or alternatively on 35 U.S.C. section 103 of the status is eminently appropriate and acceptable. *In re Brown and Saffer*, 173 USPQ 685 and 688; *In re Pilkington*, 162 USPQ 147. Therefore, no patentable weight is given to the limitations of claims 5, 16, 21, 34, and 39.

Regarding claim 12, Krichever is silent as to the material of the switch body (126). However, if the material of the switch body (126) was not inherently a material that can be cast or injection molded, it would be obviously expedient to use such a material in Krichever for purposes of mass production. This is because it is well-known that many metals (i.e., aluminum, iron, etc.) can be cast and many types of plastics can be injection molded. Casting and injection molding are well-known processes for mass producing manufactured articles. Thus, one of ordinary skill in the art would find such materials desirable to use in Krichever. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to obtain the invention specified by claim 12.

8. Claims 4, 19, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krichever as applied to claims 6, 32, and 36 above.

Regarding claims 4, 19, and 40, the previous remarks are incorporated herein.

Krichever differs from claims 4, 19, and 40, in that Krichever is silent as to the thickness of the glass body support (162). However, finding an optimum thickness for the glass body support (162) of Krichever would be considered an obvious design choice, perhaps involving some routine experimentation. If the thickness of the glass body support (162) in Krichever is not inherently within the ranges specified by claims 4, 19, and 40, it would be obvious for one of ordinary skill in the art to determine an optimum size/thickness for the glass body which falls within the claimed ranges through routine experimentation. Therefore, it would have been obvious to one of ordinary skill at the time of the claimed invention to obtain the invention specified by claims 4, 19, and 40.

9. Claims 7-9 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krichever as applied to claims 36 and 39 above; and further in view of U.S. Patent No. 6,310,737 to Gillich et al. ("Gillich").

Regarding claims 7-9, Krichever does not expressly disclose using a protective layer as specified by claims 7-9 and 22.

However, Gillich in a related disclosure teaches the benefits of using a protective layer made of SiO_2 (i.e., silicon oxide) which is vacuum deposited over a metallic reflective layer. Note col. 1, ll. 54-67 of Gillich.

Since the invention of Gillich has applicability to reflector bodies in general (see Gillich, col. 2, ll. 24-30), the ordinary skilled artisan would have found it obvious at the time of the claimed invention to apply the teachings of Gillich to modify Krichever's glass body support (162) in order to provide protection for the reflective layers (164, 166) of Krichever. Therefore, claims 7-9 and 22 are unpatentable over Krichever in view of Gillich.

Allowable Subject Matter

10. Claims 37, 38, 41-43, 26-30, 33, and 35 are allowed.
11. Claims 2, 13, and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
12. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 13, it does not appear to be suggested by or obvious in view of Krichever to arrange his support (162) on a cuboid-shaped switch body in a surface-flush manner in a recess.

Regarding claims 37, 42, and 33, it does not appear to be suggested by or obvious in view of Krichever to provide a slot in his switch body (126) for inserting his support (162)

Regarding claim 38, it does not appear to be suggested by or obvious in view of Krichever to arrange the glass support (162) to project from the switch body (126) in the manner of a lug.

Regarding claims 2, 20, 41, 43, 26-30, and 35, it does not appear to be suggested by or obvious in view of Krichever to form his support (162) by cutting a glass body out of glass plate already provided with the reflective layers.

Conclusion

13. Note that the Gillich reference used in the above rejection was submitted on a previous PTO-892 form used in a previous Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Omar Rojas whose telephone number is (571) 272-2357 and whose e-mail address is *omar.rojas@uspto.gov*. The examiner can normally be reached on Monday-Friday (7:00AM-3:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rod Bovernick, can be reached on (571) 272-2344. The official facsimile number for regular and After Final communications is (703) 872-9306. The examiner's RightFAX number is (571) 273-2357.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Omar Rojas
Patent Examiner
Art Unit 2874

or
December 1, 2004


AKM ENAYET ULLAH
PRIMARY EXAMINER